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RANA, Tariq M. 22 Johanna Court		X applicant and inventor		
Piscataway, New Jersey 08854				
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of all designated States of Jor Interpress of the Arminication of Boxes No. III and No. III (as the case may be), indicate the name of "Continuation of Box No. III" or "Continuation of Box No. III" or "Continuation of Box No. III and No. III (as the case may be), indicate the name of inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI paten the purposes of which the named person is inventor; if, in addition to the agent(s) indicated in Box No. IV, there are further agents: in such case, write "Continuation of Box No and indicate for each further agent the same type of information as required in Box No. IV; if, in Box No. V, the name of the United States of America is accompanied by an indication "continuation" or "continuation or "continuation of Box No. V" and the name of each State involved for OAPI), and after the name in-part": in such case, write "Continuation of Box No. V" and the name of each State involved for OAPI), the number of the parent title or parent application and the date of grant of the parent title or, of the parent application: if in Box No. VI, there are more than three earlier applications whose priority is claimed: in such case, write "Continuation of the parent title or, of the parent application: Box No. VI, the earlier application is an ARIPO application: in such case, write "Continuation of Box No. VI", Box No. VI, the earlier application and indicate aleast one country party to the Paris Convention the Protection of Indistrial Property for which that earlier application was filed. If it is the regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s), the soppe of that statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicatement or two-letter code of each State so excluded. If the applicant claims, in respect of any designated Office, the benefits of provisions of the national law concerning non-prej	ii)	in such case, write Continuation of Box 10.11 continued and, next to (each) such name, the State(s) (and/or, where (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such named person is applicant; applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;
and indicate for each juriner agent in studies (yet of system) in succompanied by the indication "patent of addition," or "certificate of addition of in Box No. V. the name of the United States of America is accompanied by an indication "continuation" or "continuation of Box No. V" and the name of each State involved for OAPI), and after the nation to such case, write "Continuation of Box No. V" and the name of each State involved for OAPI), the number of the parent title or parent application and the date of grant of the parent title or, of the parent application; if, in Box No. VI, there are more than three earlier applications whose priority is claimed: in such case, write "Continuation Box No. VI" and indicate for each additional earlier application was provided in Box No. VI", and indicate for each additional earlier application in such case, write "Continuation of Box No. VI", specific in the solution of the item corresponding to that earlier application and indicate at least one country party to the Paris Convention the Protection of Industrial Property for which that earlier application was filed. If, with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any States, the scope of that statement: in such case, write "Designation(s) excluded from precautionary designation statement and indicates at the statement: in such case, write "Designation(s) excluded from precautionary designation statement in such case, write "Statement concerning non-prejudicial disclosures or exceptions to lack of novelty: in such case, write "Statement concerning non-prejudicial disclosures or exceptions to lack of novelty: in such case, write "Statement concerning non-prejudicial disclosures or exceptions to forovelty: and furnish that statement below. CONTINUATION OF BOX IV DORFMAN, Patrick J. REED, Janet E. All above attorneys are of the firm of DANN, DORFMAN, HERRELL AND SKILLMAN.	ii)	of all designated States or for the purposes of the continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor,
(v) if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition" or if, in Box No. V, the name of the United States of America is accompanied by an indication "continuation" or "continuation of the parent of the parent application and the date of GAPI), and after the name each such State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or of the parent application; (vi) if, in Box No. VI, there are more than three earlier applications whose priority is claimed: in such case, write "Continuation Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI", Box No. VI" and indicate for each additional earlier application in such case, write "Continuation of Box No. VI", specification of the item corresponding to that earlier application and indicate at least one country party to the Paris Convention the Protection of Industrial Property for which that earlier application and indicate at least one country party to the Paris Convention the Protection of Industrial Property for which that earlier application and indicate at least one country party to the Paris Convention the Protection of Industrial Property for which that earlier application was filed. If with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s, the scope of that statement: in such case, write "Designation(s) excluded from precautionary designation statement and indicate and two recommendations to lack of novelty: in such case, write "Statement concerning non-prejudicial disclosures or exceptions to face of novelty: in such case, write "Statement concerning non-prejudicial disclosures or exceptions to force the particle of	iv)	and indicate for each further agent the same type of information
Box No. VI and indicate for each additional contents application: in such case, write "Continuation of Box No. VI", specified in the Protection of Industrial Property for which that earlier application and indicate at least one country party to the Paris Convention the Protection of Industrial Property for which that earlier application was filed. 2. If with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s. If with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s. If with regard to the precautionary designation statement" and indicate a two-letter code of each State so excluded. 3. If the applicant claims, in respect of any designated Office, the benefits of provisions of the national law concerning non-prejudistal disclosures or exceptions to fine and furnish that statement below. CONTINUATION OF BOX IV DORFMAN, John C. HERRELL, Roger W. SKILLMAN, Henry H. PIPER, Jr., Donald R. PACE, Vincent T. HAGAN, Patrick J. REED, Janet E. All above attorneys are of the firm of DANN, DORFMAN, HERRELL AND SKILLMAN.	(v)	if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition, or "continuation" or "continuation or "continuation" or "continuation of Box No. V" and the name of each State involved (or OAPI), and after the name of each State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application:
iii) if, in Box No. VI, the earlier application is an ARIPO application: in such case, write "Continuation of Box No. VI", specinumber of the item corresponding to that earlier application and indicate at least one country party to the Paris Convention the Protection of Industrial Property for which that earlier application was filed. If, with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s. If, with regard to the precautionary designation statement and indicate and statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicate and two-letter code of each State so excluded. If the applicant claims, in respect of any designated Office, the benefits of provisions of the national law concerning non-prejudicions to lack of novelty: in such case, write "Statement concerning non-prejudicial disclosures or exceptions to fine novelty" and furnish that statement below. CONTINUATION OF BOX IV DORFMAN, John C. HERRELL, Roger W. SKILLMAN, Henry H. PIPER, Jr., Donald R. PACE, Vincent T. HAGAN, Patrick J. REED, Janet E. All above attorneys are of the firm of DANN, DORFMAN, HERRELL AND SKILLMAN.	vi)	Ray No VI" and indicate for each additional earner approximation
If, with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any States, he scope of that statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicate ame or two-letter code of each State so excluded. If the applicant claims, in respect of any designated Office, the benefits of provisions of the national law concerning non-prejudical disclosures or exceptions to lack of novelty: in such case, write "Statement concerning non-prejudicial disclosures or exceptions to novelty" and furnish that statement below. CONTINUATION OF BOX IV DORFMAN, John C. HERRELL, Roger W. SKILLMAN, Henry H. PIPER, Jr., Donald R. PACE, Vincent T. HAGAN, Patrick J. REED, Janet E.		if. in Box No. VI, the earlier application is an ARIPO application: in such case, write "Continuation of Box No. VI", specify to number of the item corresponding to that earlier application and indicate at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed.
CONTINUATION OF BOX IV DORFMAN, John C. HERRELL, Roger W. SKILLMAN, Henry H. PIPER, Jr., Donald R. PACE, Vincent T. HAGAN, Patrick J. REED, Janet E. All shove attorneys are of the firm of DANN, DORFMAN, HERRELL AND SKILLMAN.	re s	scope of that statement: in such case, write Daughandon,
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PACE, Vincent T. HAGAN, Patrick J. REED, Janet E. All shove attorneys are of the firm of DANN, DORFMAN, HERRELL AND SKILLMAN.		
PACE, Vincent T. HAGAN, Patrick J. REED, Janet E. All shove attorneys are of the firm of DANN, DORFMAN, HERRELL AND SKILLMAN.		
HAGAN, Patrick J. REED, Janet E. All above attorneys are of the firm of DANN, DORFMAN, HERRELL AND SKILLMAN.	1	PACE, Vincent T.
REED, Janet E. All shove attorneys are of the firm of DANN, DORFMAN, HERRELL AND SKILLMAN.		
All above attorneys are of the firm of DANN, DORFMAN, HERRELL AND SKILLMAN. Address of all is indicated in Box IV.	1	REED, Janet E.
	1	All above attorneys are of the firm of DANN, DORFMAN, HERRELL AND SKILLMAN. Address of all is indicated in Box IV.
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Box No. VI PRIORITY CLAIM				
Filing date Number Where earlier application is:				
of earlier application (day/month/year)	of earlier application	national application:	regional application:*	international application:
		country	regional Office	receiving Office
item (1) (25.01.99)	60/117,099	United States		
25 January 1999	00/11/,033	of America		
item (2)				
item (3)	· · · · · · · · · · · · · · · · · · ·			
ttem (3)		·		
of the earlier application(s	i) (only if the earlier ap ernational application	ransmit to the International Bu oplication was filed with the is the receiving Office) identifi	Office which for the ied above as item(s):	(1)
Where the earlier application is a Convention for the Protection of In	an ARIPO application, it	is mandatory to indicate in the Su h that earlier application was file	pplemental Box at least on d (Rule 4.10(b)(ii)). See Si	ne country party to the Paris supplemental Box.
	NAL SEARCHING			
Choice of International Search		Request to use results of ear	lier search; reference	to that search (if an earlier
(if two or more International Sec competent to carry out the interna- the Authority chosen; the two-letter	rching Authorities are attional search, indicate	search has been carried out by or Date (day/month/year)	requested from the Interna Number	tional Searching Authority): Country (or regional Office)
ISA/ US				
Box No. VIII CHECK LIST	: LANGUAGE OF F	ILING		
This international application co	ontains This internal	tional application is accompar	nied by the item(s) mark	ed below:
the following number of sheet	s: 1. 🔼 fee ca	alculation sheet		
request : 4	2. ☐ separ	ate signed power of attorney		
description (excluding sequence listing part) : 15	3. ⊠ copy	of general power of attorney;	reference number, if an	y: .
claims : 3	1, E			
abstract : 1	5. priori	ity document(s) identified in B	Sox No. VI as item(s):	•
drawings : 4	· · · · · · · · · · · · · · · · · · ·			
sequence listing part 7. separate indications concerning deposited microorganism or other biological material				
of description : 1 8. Z nucleotide and/or amino acid sequence listing in computer readable form				
Total number of sheets : 2	8	(specify):		
Figure of the drawings which should accompany the abstract:		Language of filing of the international application:	English	
Box No. IX SIGNATURE OF APPLICANT OR AGENT				
Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).				
·				
5.1 10. ()				
Celum - Rlaun				
Ellen M. Klann, Ph.D.				
Agent for Applicant				
For receiving Office use only				
1. Date of actual receipt of the purported international application:				
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:				
4. Date of timely receipt of the required corrections under PCT Article 11(2):				
5. International Searching Aut (if two or more are compete	hority nt): ISA/	6. Transmitt until sear	al of search copy delaye ch fee is paid.	ed
For International Bureau use only				
Date of receipt of the record copy by the International Bureau:				
Form PCT/RO/101 (last sheet) (.	July 1998: reprint Janu	ary 2000)	S	ee Notes to the request form

Sheet No. ...4...

This sheet is not part of and does not count as a sheet of the international application.

PCT	For receiving Office use only
FEE CALCULATION SHEET	·
Annex to the Request	International application No.
Applicant's or agent's file reference	Date stamp of the receiving Office
Applicant	
UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW	JERSEY
CALCULATION OF PRESCRIBED FEES	
1. TRANSMITTAL FEE	240.00 T
2. SEARCH FEE	700.00 s
International search to be carried out by US	w to the international
(If two or more International Searching Authorities are competent in relation application, indicate the name of the Authority which is chosen to carry out the in	ternational search.)
3. INTERNATIONAL FEE	
Basic Fee The international application contains 28 sheets.	
first 30 sheets	b1
$\frac{0}{x} = 0$	b2
remaining sheets additional amount	
Add amounts entered at b1 and b2 and enter total at B	427.00 B
Designation Fees	
The international application contains 5 designations.	
5 x 92.00 =	460.00 D
number of designation fees amount of designation fee payable (maximum 8)	
Add amounts entered at B and D and enter total at I	887.00 I
(Applicants from certain States are entitled to a reduction of 75%	of the
(Applicants from certain States are entitled to a reduction of 75% international fee. Where the applicant is (or all applicants are) so entitle total to be entered at I is 25% of the sum of the amounts entered at B at	nd D.)
4. FEE FOR PRIORITY DOCUMENT (if applicable)	15.00 P
5. TOTAL FEES PAYABLE	
The designation fees are not paid at this time.	
MODE OF PAYMENT	
authorization to charge bank draft	coupons
cheque cash	other (specify):
postal money order revenue stamps	
DEPOSIT ACCOUNT AUTHORIZATION (this mode of payment n	
The RO/ US is hereby authorized to charge the total fees	
hereby authorized to charge any deficiency deposit account.	conditions for deposit accounts of the receiving Office so permit) is or credit any overpayment in the total fees indicated above to my
is hereby authorized to charge the fee for pro Bureau of WIPO to my deposit account.	eparation and transmittal of the priority document to the International
04-1406 25 January 2000	_ Elle M. Flan
Denosit Account No. Date (day/month/year)	Signature Filen M. Klann, Ph.D.

GENERAL POWER OF ATTORNEY

(for several international applications filed under the Patent Cooperation Treaty)
(PCT Rule 90.5)

The undersigned person(s): (Family name followed by given name; for a legal entrame of country.)	ity, full official designation	The address must include postal code and
L. M. Stephenson, Ph.D. Director of Patents and Licensing UNIVERSITY OF MEDICINE AND DENTISTRY OF NE 30 Bergen Street Newark, New Jersey 07107 United States of America	.	
hereby appoint(s) the following person as:	agent	common representative
Name and address (Family name followed by given name; for a legal ent name of country.)	ity, full official designation	. The address must include postal code and
DORFMAN, John C. HERRELL, Roger W. SKILLMAN, Henry H. HAGAN, Patrick J. PIPER, Jr., Donald R. PACE, Vincent T. REED, Janet E. RIGAUT, Kathleen D.		
DANN, DORFMAN, HERRELL AND SKILLMAN 1601 Market Street Suite 720 Philadelphia, Pennsylvania 19103-2307 United States of America	· .	
to represent the undersigned before	all the competent Int	ernational Authorities
	the International Sea	rching Authority only
	the International Pre	liminary Examination Authority only
in connection with any and all internation Office	nal applications filed by	the undersigned with the following
US/RO		the male and
as receiving Office and to make or receiv	ve payments on behalf of	the undersigned.
Signature(s) (where there are several persons, e- person signing and the capacity in which the person	signs, if such capacity is not	each signature, indicate the name of the obvious from reading this power):
UNIVERSITY OF MEDICINE AND DENTIS	TRY OF NEW JERSEY	
L.M. Stephenson, Ph.D. Director of Patents and Licensing		
Date: 8 October 199	79	
Form PCT/Model of general power of attorn	ey (for several internat:	ional applications) (July 1992)